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PROVIDING A HEALTHFUL SCHOOL ENVIRONMENT. STANDARDS AND PROCEDURES.

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THIS REPORT DISCUSSES STANDARDS AND PROCEDURES AS APPLIED TO MENTAL AND PHYSICAL HEALTH AND SAFETY AS AFFECTED BY THE PHYSICAL SURROUNDINGS. A BIBLIOGRAPHY DESCRIBING STANDARDS AND SUGGESTED PROCEDURES, AND A CHECKLIST, ARE PROVIDED FOR VOLUNTARY SELF APPRAISAL. THE CHECKLIST COVERS (1) THE SCHOOL GROUNDS, (2) THE SCHOOL BUILDING, (3) ILLUMINATION, (4) HEATING AND VENTILATION, (5) WATER SUPPLY, (6) TOILET FACILITIES AND WASTE DISPOSAL, (7) FIRE AND SAFETY, (8) CLASSROOMS, AND (9) KITCHEN AND LUNCHROOM. THE CHECKLIST INCLUDES BOTH PHYSICAL SPECIFICATIONS AND PERFORMANCE CRITERIA. SUGGESTIONS ARE ALSO GIVEN FOR STUDENT AND TEACHER PARTICIPATION AND CLASSROOM ACTIVITIES RELATED TO ENVIRONMENTAL HEALTH. (MM)

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Check List on School Environmental Health

	Yes	No	Not Applicable	Remarks
A. THE SCHOOL GROUNDS				
1. Is the school readily accessible to the pupils?				
2. Is the site handicapped by reason of:				
a. Heavy traffic				
b. Noise				
c. Smoke or fumes				
3. Are the grounds:				
a. Well drained				
b. Graded				
c. Landscape planted				
d. Free of hazards				
4. Is there at least 1,000 sq. ft. of protected play area for each child using the area at any one time?				
5. Is a portion of the playground hard-surfaced for use in wet weather?				
6. Are the grounds maintained in a neat and clean condition?				
7. Are the pupils encouraged to cooperate in the care and upkeep of the grounds?				
8. Are factilities provided for the safe unloading and loading of children transported by bus?				
9. Are the walks and drives maintained in a safe condition?				
10. Is there a ramp entrance to the building?				
B. THE SCHOOL BUILDING				
1. Is the building substantially and durably constructed?				
2. Can existing facilities be expanded?				
3. Is the roof construction plain and durable?				
4. Are exit doors equipped with safety or panic bars?				
5. Are the floors:				
a. Clean and well maintained?				
b. Finished in a light color?				
6. Are corridors free of obstructions?				
7. Do itairways have continuous handrails?				
8. Does the general appearance of the building encourage pupil cooperation in maintenance?				
9. Do the general characteristics of the building provide for health and safety?				

Providing a Healthful School Environment

COLORADO STATE DEPARTMENT OF EDUCATION
Byron W. Hansford, Commissioner
Denver, 1962

EF 000073

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Providing a Healthful School Environment

Standards and Procedures

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Prepared under the Supervision of the
Colorado Advisory Committee on School Health
by
Norma Johannis, Mildred Doster, M.D.
and
Robert Cochrane

★

OFFICE OF INSTRUCTIONAL SERVICES
Leo P. Black, Assistant Commissioner
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Denver, 1962

FOREWORD

This booklet, which is one of a series replacing the book *Conserving the Health of Colorado's Children* and the manual, *Sanitary School Survey,* has been prepared under the direction of the Colorado Advisory Committee on School Health of the State Department of Education.

The Department of Education wishes to express its appreciation to those persons who contributed generously of their time and talents in the preparation of the booklet. Robert Cochrane prepared the original draft of the checklist with revisions and editing being done by Mildred Doster, M.D. and Norma Johannis.

It is hoped that this pamphlet will be found useful to both teachers and administrators in providing information that will contribute to a healthful school environment.

Byron W. Hansford
Commissioner of Education

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The Environment In The School Health Program

The school system plays an important role in the formation of the habits and attitudes of the people in the community. All education should be for the purpose of helping the individual realize and assume his duties and responsibilities in a democratic society in such a manner that both he and society will derive full benefit.

Only in a school that provides a good standard of healthful environment can the most effective learning take place. It is necessary to have an environment and experiences which will result in improved attitudes and satisfying practices in healthful-living situations.

Since the child learns best by doing, the school's responsibility is to provide opportunities in the classroom, on the playground, in the lunchroom and on the way to and from school for experiences through which the child receives the benefits of and learns about good health practices as they relate to the environment. Daily experiences in a good school environment in addition to using the environment as a teaching tool should result in improved health knowledge, attitudes, and practices.

It is not intended that this pamphlet take the place of administrative reviews done by divisions in the Department of Education, nor is it intended to be a required appraisal of the school environment. Rather, this pamphlet is to be used as a voluntary self-appraisal by school staff and administration so that constant watch can be kept on ways and means to improve and expand the opportunities for a healthful school environment.

There are many ways also in which such a device can be used as a teaching device. There should be a planned program of instruction in which students may have a part in the inspection, interpretation and correction of hazards in the school environment. Theories taught in class regarding the school plant and housekeeping should be carried out in practice through improved behavior patterns of pupils. Students should be guided in the development of attitudes and practices that stimulate good cooperation in the use of the school plant and its facilities.

The factors which relate to a healthful school environment can be integrated with many of the subject-matter fields. Some suggestions are listed below.

1. Fine Arts: Students in art classes could develop suggested plans for redecorating such areas as classrooms, lunchroom, lounges, etc. This group could also formulate attractive landscaping plans. They could work out places for exhibits, bulletin board displays, etc.

2. Industrial Arts Classes: Could work out specifications and cost estimates for structural or equipment corrections and under the direction of qualified personnel effect minor repairs or installations.

3. Home Arts Classes: Might use the kitchen and lunchroom as a laboratory to study proper food storage and maintenance of utensils. They could assist in the selection of items of furnishing for special rooms in the school.

4. Social Studies Classes: Might study the school's water supply and sewage disposal in relation to approved methods and standards. Findings of the CHECK LIST could be used to suggest ways in which to eliminate possible accident sources.

5. Science Classes: Would be interested in such factors as lighting, heating and ventilation. Samples of water, food and air in the school environment could be analyzed in the science laboratory.

The above items are merely suggestions. No doubt many more ideas will present themselves to instructors that will in the long run make them aware of the importance of a healthful school environment.

The material in this guide is intended as a measuring device by which the school administrator, teacher and in some cases, the pupils, may join in evaluating the environment of their school and in utilizing the experience and findings as learning experiences. It should also serve to develop an awareness of needed improvements in structure and maintenance.

Standards and Recommendations

Each school has its individuality in terms of site, type of building, size and operation. Consequently, each school will have its individual problems of providing a safe and sanitary environment.

Experience has shown that it is possible to provide a healthful environment if certain basic requirements and standards are followed in construction and maintenance. In some instances, it is a matter of complying with codes or standards of regulatory groups such as the water and plumbing codes of the local or State Health Departments. Other facets of school environment are affected by standards that have been found through experience to be valuable guides; for example, the *Standard Practice for School Lighting* prepared by the Illuminating Engineering Society. Whether standards are mandatory or permissive, there is real merit in using them as guides to evaluate the school environment. Meeting such standards gives assurance of a high caliber of sanitary and safety practices.

No attempt is being made to reproduce in this publication all the codes, standards and regulations which are pertinent to the school environment. For technical and detailed information in the various areas, reference should be made to the following publications. The following references correspond to the items of the CHECK LIST ON SCHOOL ENVIRONMENTAL HEALTH which is included in this booklet.

A. The School Grounds

Guide for Planning School Plants

National Council on Schoolhouse Construction
Floyd G. Parker, Secretary
Michigan State University, East Lansing, Michigan

B. The School Building

1-9. *Guide for Planning School Plants*

National Council on Schoolhouse Construction
Floyd G. Parker, Secretary
Michigan State University, East Lansing, Michigan

10. *Illumination*

American Standard Practice for School Lighting
Illuminating Engineering Society
1860 Broadway
New York City 23, New York

Toward Better School Design
William Caudill
F. W. Dodge Corporation
119 West 40th Street
New York City, New York

Planning America's School Buildings
AASA 1960 Yearbook

Guide for Planning School Plants (see 1-9)

11. *Heating and Ventilation*

Toward Better School Design

Guide for Planning School Plants
(see #10 above)

12. *Water Supply*

Public Health Service Drinking Water Standards 1946
Colorado State Department of Public Health
4210 East 11th Avenue, Denver, Colo.

or the Local Health Department serving the county

13. *Toilet Facilities and Waste Disposal*

Technical Plumbing Code (amended April 1956)
Colorado State Department of Public Health
4210 East 11th Avenue, Denver, Colo.

or the Local Health Department serving the county

Swimming Pool Regulations (Adopted March 1957)
Colorado State Department of Public Health
4210 East 11th Avenue, Denver, Colo.

or the Local Health Department serving the county

14. *Fire and Safety*

American School Buildings
(see #10 above)
State Industrial Commission
Capitol Annex, Denver 2, Colo.

Building Exits Code — 15th ed. 1958
National Fire Protection Association
60 Batterymarch Street, Boston 10, Massachusetts

or local fire or building authority

Uniform Building Code 1958 ed.
International Conference of Building Officials
610 South Broadway
Los Angeles 14, California —

or local fire or building authority

15. *Classrooms*

Toward Better School Design
(see #10 above)

16. *Kitchen and Lunchroom*

Restaurant Sanitation Laws, Rules and Regulations (amended August 1954)
Colorado State Department of Public Health
4210 East 11th Avenue, Denver, Colo.

or the Local Health Department serving the county

Fluid Milk Standards (adopted December 1956)
4210 East 11th Avenue, Denver, Colo.

or the Local Health Department serving the county

Consultative services relative to the school environment are available through the State Department of Education and the State Department of Public Health

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c. Landscape planted				
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5. Are the floors: a. Clean and well maintained?				
b. Finished in a light color?				
6. Are corridors free of obstructions?				
7. Do stairways have continuous handrails?				
8. Does the general appearance of the building encourage pupil cooperation in maintenance?				
9. Do the general characteristics of the building provide for health and safety?				

	Yes	No	Not Applicable	Remarks
10. Illumination:				
a. Do the windows provide adequate glare-free light* under normal working conditions?				
b. Are there dark spots or dark areas in the 1. Corridors or stairways				
2. Classrooms				
3. Other				
c. Does the paint and finish of exposed surfaces create glare?				
d. Are natural and artificial lighting easily regulated to meet all needs including the use of visual aids?				
11. Heating and Ventilation				
a. Does the heat plant keep classrooms uniformly warm at the seat level? (Thermo-comfort of the pupils is most important—varies from 65° to 72° F.)				
b. Are classrooms provided with suitably located thermometers?				
c. Are all areas of the building adequately ventilated?				
d. Are individual controls provided in each classroom?				
e. Is ventilation accomplished without drafty conditions in the working area?				
12. Water Supply				
a. Is there a sufficient supply of drinking water?				
b. Does the water come from an approved source?				
c. Is the source adequately protected?				
d. If a well or spring is used, when was the water last tested?				
e. Are drinking fountains of "angle-jet" type?				
f. Are drinking facilities maintained in a sanitary condition?				
13. Toilet Facilities and Waste Disposal				
a. Are there separate toilet facilities for boys and girls?				
b. Do they meet standards?				
c. Are separate toilet and lavatory facilities provided for both men and women staff members?				
d. Is toilet and lavatory equipment provided good care and maintenance?				

* Adequate glare-free light for different tasks often vary from 8 ft. candles to 100 ft. candles

	Yes	No	Not Applicable	Remarks
e. Are adequate supplies of soap, towels and toilet tissue maintained in toilets?				
f. Are mirrors provided in both boys and girls lavatory?				
g. Are filled sanitary napkin dispensers and provision for disposal provided?				
h. Adequate provisions for disposal of sewage and waste?				
i. Are desirable standards of sanitation maintained in toilets and lavatories?				
j. Do pupils cooperate in maintaining sanitation?				
k. If there is a swimming pool, is it constructed and maintained in a sanitary manner?				
l. Are dressing and locker rooms adequate, easily cleaned and kept clean?				
14. Fire and Safety a. Are fire extinguishers conveniently located?				
b. Are fire extinguishers inspected annually?				
c. Do doors from every room open outward?				
d. Do the door locks and regulator controls operate freely?				
e. Are all storage spaces clean and free of combustible materials?				
f. Are there fire hydrants near the building?				
g. Is the furnace room equipped with a fire-proof door?				
h. Does the furnace room have a direct outside entrance?				
i. Are there regularly scheduled fire drills?				
j. Are there regularly scheduled civil defense drills?				
k. Is the play equipment operationally safe?				
l. Is there first aid equipment readily available?				
m. Does each room occupied by children have at least two exits?				
15. Classrooms a. Do classrooms provide at least 30 sq. ft. of floor space for each child in the room?				
b. Is the seating equipment adjustable to each child's needs?				
c. Is adequate provision made for storing instructional materials and supplies?				
d. Are provisions made for storing children's wraps inside the classroom?				

	Yes	No	Not Applicable	Remarks
e. Are these storage areas ventilated?				
f. Do the classrooms have sufficient chalkboard?				
g. Does the classroom have sufficient bulletin board display space?				
h. Does each classroom have at least three safe electrical outlets?				
i. Are classrooms acoustically treated?				
16. Kitchen and Lunchroom a. Does the size of the kitchen and lunchroom meet the enrollment needs?				
b. Is the furniture durable, neat and easily cleaned?				
c. Has the lunchroom been acoustically treated to reduce the hazard of noise?				
d. Are the kitchen and lunchroom floors, ceilings and walls smooth and easily cleaned, and are they kept clean?				
e. Is the lunchroom easily heated and ventilated?				
f. Do the pupils assume responsibility in maintaining the cleanliness of the lunchroom?				
g. Are handwashing facilities conveniently available for pupils and kitchen staff?				
h. Are utensils and equipment in good repair and properly washed, sanitized and protected from contamination after cleaning?				
i. Is food protected from contamination and possible spoilage at all times?				
j. Are wastes stored and disposed of so as not to cause insect, rodent or odor nuisances?				

REMARKS: (Please use this page for discussing items checked in the remarks column, or for additional comments you may have relative to the sanitary condition of the school facilities.)